Title (en)

Semiconductor memory device

Title (de)

Halbleiterspeicheranordnung

Title (fr)

Dispositif de mémoire à semi-conducteurs

Publication

EP 0591850 B1 19981223 (EN)

Application

EP 93115830 A 19930930

Priority

JP 26238292 A 19920930

Abstract (en)

[origin: EP0591850A2] The semiconductor memory device comprises a memory array (9) and a data bus line (1) for transferring read and write data between the memory array and an input buffer (IB) and an output buffer (OB) and also transferring an information indicating read or write mode operation. The data bus line transfers the read data as a complement signal having a predetermined amplitude which is smaller than a potential difference between high and low level power source lines (7 and 8, respectively). The predetermined amplitude is defined by a first and a second impedance means (2 and 3, respectively) connected between the data bus line and a first and a second power source line (7 and 8), respectively, The first impedance means (2) is associated with a first end of the data bus line in the input-output buffer area and the second impedance means (3) is associated with a second end of the data bus line in the inner circuit area of the device. The write data is transferred via the data bus line (1) as a complement signal having a larger amplitude than that of read data. The memory array accepts the signal on the data bus line as a write data signal according to its amplitude. The memory array (9) is equipped with a write control gate for detecting the amplitude of the complement signal on the data bus line (1). <IMAGE>

IPC 1-7

G11C 7/00

IPC 8 full level

G11C 11/407 (2006.01); **G11C 7/10** (2006.01); **G11C 7/22** (2006.01); **G11C 11/409** (2006.01); **G11C 11/417** (2006.01)

CPC (source: EP KR US)

G11C 7/1045 (2013.01 - KR); **G11C 7/1078** (2013.01 - EP US); **G11C 7/1084** (2013.01 - KR); **G11C 7/1096** (2013.01 - EP KR US); **G11C 7/22** (2013.01 - EP KR US)

Cited by

EP0967616A1; US6101141A; WO9941750A1

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

EP 0591850 A2 19940413; **EP 0591850 A3 19941221**; **EP 0591850 B1 19981223**; DE 69322725 D1 19990204; DE 69322725 T2 19990506; JP 2812097 B2 19981015; JP H06111575 A 19940422; KR 940007887 A 19940428; KR 970000882 B1 19970120; US 5500820 A 19960319; US RE36621 E 20000321

DOCDB simple family (application)

EP 93115830 A 19930930; DE 69322725 T 19930930; JP 26238292 A 19920930; KR 930020409 A 19931002; US 12936293 A 19930930; US 4029498 A 19980318